National Carbon Monoxide Awareness Association

Position Statement on Carbon Monoxide Safety

The National Carbon Monoxide Awareness Association (NCOAA) developed the following statement to educate the public, healthcare professionals, and regulatory groups on the risk of acute and chronic carbon monoxide poisoning.

ABOUT CO POISONING

- Carbon monoxide (CO) is a colorless, odorless, and tasteless non-irritating gas that is imperceptible to human senses. CO is a leading cause of poisoning in the United States (US), accounting for more than 20,000 ER visits annually.(1)
- CO poisonings in the US are likely significantly higher than estimated, due to the imperceptible nature of CO, the wide array of CO poisoning symptoms, and a lack of robust diagnostic tools.
- Health effects of CO poisoning range from mild symptoms such as fatigue, dizziness, headache, confusion, and nausea. More severe symptoms vary widely and may include (but are not limited to) disorientation, unconsciousness, long-term neurological disabilities, coma, cardiorespiratory failure, and death.(2)
- CO exposure is commonly underdiagnosed or misdiagnosed due to the nonspecific nature of the clinical effects and narrow time constraints (within 4 hours of exposure) to diagnose CO poisoning.(3)
- CO poisoning disproportionately affects marginalized communities, particularly those who are socially and economically disadvantaged.(4) As such, mitigating further CO poisonings is critical to create a healthier, more equitable and just society.
- Some populations are more vulnerable to the effects of CO poisoning, such as children, unborn babies, the elderly, those with heart disease, and small pets.

A PRAGMATIC APPROACH TO CO SAFETY

When managing significant risk it is always best to be proactive and preventative. CO exposure from fuel-burning appliances, such as gas ranges and generators, can exceed WHO and EPA recommended limits and cause harm to consumers. The United Kingdom has implemented pragmatic solutions to improve CO safety and other countries are in the process of adopting similar guidelines. We recommend a similar approach, including but not limited to the following actions, be adopted in the U.S.

1. Create a national hotline to respond to consumer inquiries with consistent and up-to-date information on CO safety.
2. Implement a mandatory standard to add CO shutoffs to new fuel-burning appliances and add retrofit shutoffs to existing ones.
3. Revise CO alarm standards to align with current health guidelines, require accurate digital displays of the ambient CO levels in a home, and improve the user interface.
4. Conduct a nationwide prevalence study to determine the frequency and severity of CO poisoning in the United States.
5. Facilitate research in CO poisoning diagnostics and treatment.
6. Provide training and detection equipment for emergency responders.
7. Mandate certification of anyone working on or installing fuel-burning appliances.
8. Require CO testing anytime a fuel-burning appliance is installed or maintenance is conducted and a checklist documenting CO levels is provided to the owner and tenant.
9. Encourage maintenance and certification to be performed annually as per manufacturers' instructions.
10. Advocate for CO diagnostic testing as a regular part of prenatal care, when presenting with CO poisoning symptoms, and after a CO incident.

These proven solutions provide an efficient and cost-effective framework for mitigating CO poisoning and protecting Americans from unreasonable risks of injuries and deaths associated with fuel-burning consumer products.

A CALL TO ACTION TO LOWER CO ALARM SET-POINTS

NCOAA is initiating this urgent call to action to lower the CO alarm threshold to protect the health and safety of individuals across the nation. Our white paper presents the following information: current CO alarm standards and the historical events that led to the creation and adoption of these standards; the scientific data that informed the WHO's recommendation for CO exposure limits; and the need for urgent action to lower CO alarm levels.

In 2021, the World Health Organization (WHO) recommended a CO exposure limit of 3.5 parts per million (ppm) over the course of 24 hours and 10 ppm over 8 hours.(5)

The US Environmental Protection Agency (EPA) and the Agency for Toxic Substances and Disease Registry (ATSDR) published two subsequent reports further detailing the negative health effects of low-level CO exposure, which are particularly harmful to the elderly and those with underlying heart disease.(6,7)

Despite these findings, however, most CO alarms in the US are prohibited by voluntary standards from alarming at levels less than 70 ppm.(8) According to the Consumer Product Safety Commission (CPSC), CO alarms are designed to be lifesaving devices, not long-term injury prevention devices, leaving millions of Americans at risk for long-term debilitating diseases resulting from, or exacerbated by, chronic low-level CO poisoning.(9) Thus, the alarm set-point for CO alarms in the US is inconsistent with the CO exposure limit supported by both national and international health organizations. .

Download the white paper at www.ncoaa.us/press.

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National Fallen Firefighters Foundation

FOCUS ON FIREFIGHTERS

NCOAA is the proud recipient of a FEMA grant to partner with the National Fallen Firefighters Foundation and other industry organizations to develop a CO safety training program for firefighters called Protect the Protectors. The Training will include CO safety basics, as well as education about underutilized lifesaving equipment to prevent carbon monoxide poisoning, emphasizing the importance of newer detection and diagnostic tools.

GET INVOLVED

To address the various challenges associated with CO safety and awareness, NCOAA is developing a multidisciplinary alliance of individuals and organizations that will work together to create and implement a strategic plan to improve CO safety. Sign up for updates on joining the National Carbon Monoxide Safety Coalition on http://coalition.NCOAA.us.

REGISTER NOW!

CO SAFETY SUMMIT

In Partnership with the National Association of State Fire Marshals and the UK's CO Research Trust

Join us for an annual dedicated CO Safety Summit focused on education, research, case studies, data, new technologies, and best practices.

Attend to receive networking opportunities to speak with 300+ fire marshals and fire service professionals, 100+ carbon monoxide professionals, community risk reduction experts, and more!

http://coalition.ncoaa.us

Carbon Monoxide Safety Coalition by NCOAA

CO SAFETY COALITION

The Coalition is a collaborative group of working partners focused on improving carbon monoxide safety.

What We Aim to Accomplish

The Coalition will bring together professionals, survivors and advocates from every sector that is touched by carbon monoxide poisoning. We will work together to impact codes & standards, regulation, products, public awareness, and more.

Membership

Membership in the Coalition is free and is open to professionals, survivors, advocates, and others who wish to work towards an end to carbon monoxide poisoning.

http://coalition.NCOAA.us

Carbon Monoxide Safety Coalition
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